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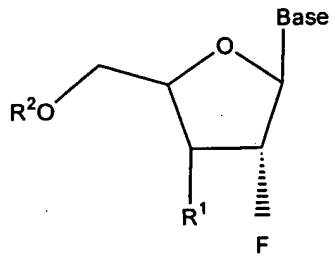
3. The compound of claim 2, wherein the purine base is selected from the group consisting of guanine, adenine, hypoxanthine, 2,6-diaminopurine and 6-chloropurine, or a pharmaceutically acceptable salt thereof.

4. The compound of claim 1, wherein the base is a pyrimidine base, R^2 is H, monophosphate, diphosphate, triphosphate or acyl, or a pharmaceutically acceptable salt thereof.

5. The compound of claim 5, wherein the base is selected from the group consisting of thymine, cytosine, 5-methylcytosine, uracil, and 5-fluorouracil, or a pharmaceutically acceptable salt thereof.

6. A pharmaceutical composition comprising an effective treatment amount of the compound of the formula:



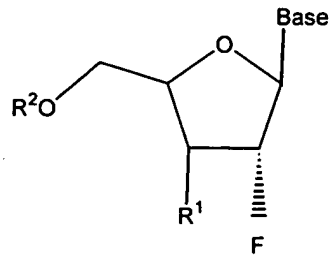
wherein

Base is a purine or pyrimidine base;

R^1 is OH, H, OR^3, N_3, CN, halogen, including F, or CF_3, lower alkyl, amino, loweralkylamino, di(lower)alkylamino, or alkoxy, and base refers to a purine or pyrimidine base;

R^2 is H, phosphate, including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug; acyl, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of providing a compound wherein R^2 is H or phosphate; sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl, benzyl, wherein

2. A method for the treatment of hepatitis C infection in humans, comprising administering to a patient in need thereof an effective treatment amount of the compound of the formula:



wherein

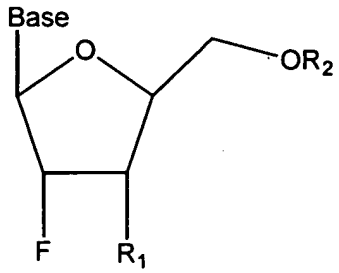
Base is a purine or pyrimidine base;

R^1 is OH, H, OR^3, N_3, CN, halogen, CF_3, lower alkyl, amino, loweralkylamino, di(lower)alkylamino, or alkoxy, and base refers to a purine or pyrimidine base;

R^2 is H, monophosphate, diphosphate, triphosphate, a stabilized phosphate prodrug, acyl, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of providing a compound wherein R^2 is H or phosphate; sulfonate ester, benzyl, wherein the phenyl group is optionally substituted with one or more substituents selected from the group consisting of hydroxyl, amino, alkylamino, arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, or phosphonate; a lipid, an amino acid, peptide, or cholesterol; and

R^3 is acyl, alkyl, phosphate, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of being cleaved to the parent compound, or a pharmaceutically acceptable salt thereof, optionally in combination with a pharmaceutically acceptable carrier.

3. A method for the treatment of abnormal cell proliferation in humans, comprising administering to a patient in need thereof an effective treatment amount of a 2'fluoro-β-L-nucleoside of the formula:



wherein

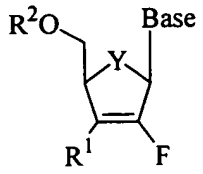
Base is a purine or pyrimidine base;

R^1 is OH, H, OR^3, N_3, CN, halogen, CF_3, lower alkyl, amino, loweralkylamino, di(lower)alkylamino;

R^2 is H, phosphate, including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug, acyl, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of providing a compound wherein R^2 is H or phosphate; sulfonate ester, benzyl, wherein the phenyl group is optionally substituted with one or more substituents selected from the group consisting of hydroxyl, amino, alkylamino, arylamino, alkoxy, aryloky, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, or phosphonate; a lipid, an amino acid, peptide, or cholesterol; and

R^3 is acyl, alkyl, phosphate, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of being cleaved to the parent compound, or a pharmaceutically acceptable salt thereof, optionally in combination with a pharmaceutically acceptable carrier.

4. A 2'-fluoro-(β-D or β-L)-nucleoside of the formula:



Y= S, CH_2 or CHF

wherein

Base is a purine base;

R^1 is H, OR^3, N_3, CN, halogen, CF_3, lower alkyl, amino, loweralkylamino or di(lower)alkylamino;

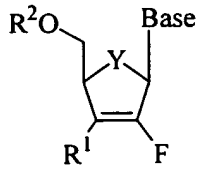
R^2 is H, monophosphate, diphosphate, triphosphate, a stabilized phosphate prodrug, acyl, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of providing a compound wherein R^2 is H or phosphate; sulfonate ester, benzyl, wherein the phenyl group is optionally substituted with one or more substituents selected from the group consisting of hydroxyl, amino, alkylamino, arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, or phosphonate; a lipid, an amino acid, peptide, or cholesterol; and

R^3 is acyl, alkyl, phosphate, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of being cleaved to the parent compound, or a pharmaceutically acceptable salt thereof, optionally in combination with a pharmaceutically acceptable carrier.

5. The compound of claim 4, wherein the base is a purine base, R^2 is H, monophosphate, diphosphate, triphosphate or acyl, or a pharmaceutically acceptable salt thereof.

6. The compound of claim 4, wherein the purine base is selected from the group consisting of guanine, adenine, hypoxanthine, 2,6-diaminopurine and 6-chloropurine, or a pharmaceutically acceptable salt thereof.

7. A pharmaceutical composition comprising an effective treatment amount of a 2'-fluoro-(β-D or β-L)-nucleoside of the formula:



Y= S, CH_2 or CHF

wherein

Base is a purine base;

R^1 is H, OR^3, N_3, CN, halogen, CF_3, lower alkyl, amino, loweralkylamino or di(lower)alkylamino;

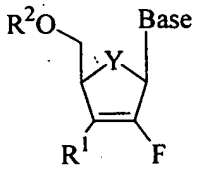
R^2 is H, monophosphate, diphosphate, triphosphate, a stabilized phosphate prodrug, acyl, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of providing a compound wherein R^2 is H or phosphate; sulfonate ester, benzyl, wherein the phenyl group is optionally substituted with one or more substituents selected from the group consisting of hydroxyl, amino, alkylamino, arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, or phosphonate; a lipid, an amino acid, peptide, or cholesterol; and

R^3 is acyl, alkyl, phosphate, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of being cleaved to the parent compound, or a

pharmaceutically acceptable salt thereof, optionally in combination with a pharmaceutically acceptable carrier.

8. The composition of claim 7, wherein the base is a purine base selected from the group consisting of guanine, adenine, hypoxanthine, 2,6-diaminopurine and 6-chloropurine, or a pharmaceutically acceptable salt thereof.

9. A method for the treatment of hepatitis B infection comprising administering to a host in need thereof an effective treatment amount of a 2'-fluoro-(β-D or β-L)-nucleoside of the formula:



Y= S, CH_2 or CHF

wherein

Base is a purine base;

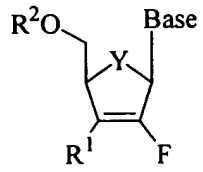
R^1 is H, OR^3, N_3, CN, halogen, CF_3, lower alkyl, amino, loweralkylamino or di(lower)alkylamino;

R^2 is H, monophosphate, diphosphate, triphosphate, a stabilized phosphate prodrug; acyl, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of providing a compound wherein R^2 is H or phosphate; sulfonate ester, benzyl, wherein the phenyl group is optionally substituted with one or more substituents selected from the group consisting of hydroxyl, amino, alkylamino,

arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, or phosphonate; a lipid, an amino acid, peptide, or cholesterol; and

R^3 is acyl, alkyl, phosphate, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of being cleaved to the parent compound, or a pharmaceutically acceptable salt thereof, optionally in combination with a pharmaceutically acceptable carrier.

10. A method for the treatment of hepatitis C infection comprising administering to a host in need thereof an effective treatment amount of a 2'-fluoro-nucleoside of the formula:



Y= S, CH_2 or CHF

wherein

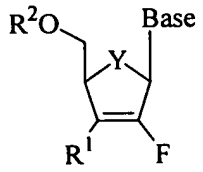
Base is a purine or pyrimidine base;

R^1 is H, OR^3, N_3, CN, halogen, CF_3, lower alkyl, amino, loweralkylamino or di(lower)alkylamino;

R^2 is H, monophosphate, diphosphate, triphosphate, a stabilized phosphate prodrug, acyl, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of providing a compound wherein R^2 is H or phosphate; sulfonate ester, benzyl, wherein the phenyl group is optionally substituted with one or more substituents selected from the group consisting of hydroxyl, amino, alkylamino, arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, or phosphonate;, a lipid, an amino acid, peptide, or cholesterol; and

R^3 is acyl, alkyl, phosphate, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of being cleaved to the parent compound, or a pharmaceutically acceptable salt thereof, optionally in combination with a pharmaceutically acceptable carrier.

11. A method for inhibiting the replication of HIV comprising administering to a host in need thereof an effective treatment amount of a 2'-fluoro-(β-D or β-L)-nucleoside of the formula:



Y= S, CH_2 or CHF

wherein

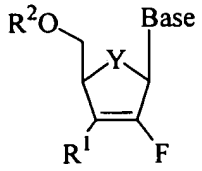
Base is a purine base;

R^1 is H, OR^3, N_3, CN, halogen, CF_3, lower alkyl, amino, loweralkylamino or di(lower)alkylamino;

R^2 is H, monophosphate, diphosphate, triphosphate, a stabilized phosphate prodrug, acyl, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of providing a compound wherein R^2 is H or phosphate; sulfonate ester, benzyl, wherein the phenyl group is optionally substituted with one or more substituents selected from the group consisting of hydroxyl, amino, alkylamino, arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, or phosphonate; a lipid, an amino acid, peptide, or cholesterol; and

R^3 is acyl, alkyl, phosphate, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of being cleaved to the parent compound, or a pharmaceutically acceptable salt thereof, optionally in combination with a pharmaceutically acceptable carrier.

12. A method for the treatment of abnormal cell proliferation in humans comprising administering to a host in need thereof an effective treatment amount of a 2'-fluoro-nucleoside of the formula:



Y = O, S, CH_2 or CHF

wherein

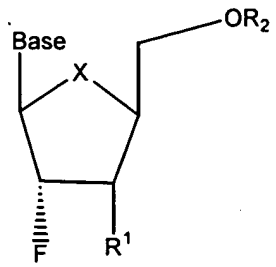
Base is a purine or pyrimidine base;

R^1 is H, OR^3, N_3, CN, halogen, CF_3, lower alkyl, amino, loweralkylamino or di(lower)alkylamino;

R^2 is H, monophosphate, diphosphate, triphosphate, a stabilized phosphate prodrug, acyl, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of providing a compound wherein R^2 is H or phosphate; sulfonate ester, benzyl, wherein the phenyl group is optionally substituted with one or more substituents selected from the group consisting of hydroxyl, amino, alkylamino, arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, or phosphonate; a lipid, an amino acid, peptide, or cholesterol; and

R^3 is acyl, alkyl, phosphate, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of being cleaved to the parent compound, or a pharmaceutically acceptable salt thereof, optionally in combination with a pharmaceutically acceptable carrier.

13. A 2'-fluoro-β-L-nucleoside of the formula:



wherein

X is S;

Base is a purine base;

R^1 is OH, H, OR^3, N_3, CN, halogen, CF_3, lower alkyl, amino, loweralkylamino, or di(lower)alkylamino;

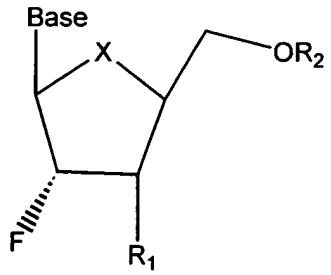
R^2 is H, monophosphate, diphosphate, triphosphate, a stabilized phosphate prodrug, acyl, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of providing a compound wherein R^2 is H or phosphate; sulfonate ester, benzyl, wherein the phenyl group is optionally substituted with one or more substituents selected from the group consisting of hydroxyl, amino, alkylamino, arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, or phosphonate; a lipid, an amino acid, peptide, or cholesterol; and

R^3 is acyl, alkyl, phosphate, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of being cleaved to the parent compound, or a pharmaceutically acceptable salt thereof, optionally in combination with a pharmaceutically acceptable carrier.

14. The compound of claim 13, wherein the base is a purine base, R^2 is H, monophosphate, diphosphate, triphosphate or acyl, or a pharmaceutically acceptable salt thereof.

15. The comound of claim 14, wherein the purine base is selected from the group consisting of guanine, adenine, hypoxanthine, 2,6-diaminopurine and 6-chloropurine, or a pharmaceutically acceptable salt thereof.

16. A pharmaceutical composition comprising an effective treatment amount of a 2'-fluoro-β-L-nucleoside of the formula:



X= S

wherein

Base is a purine base;

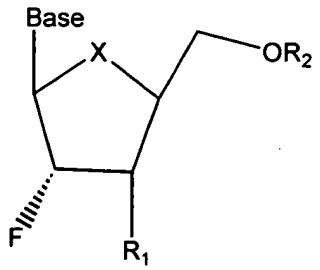
R^1 is OH, H, OR^3, N_3, CN, halogen, CF_3, lower alkyl, amino, loweralkylamino, di(lower)alkylamino;

R^2 is H, monophosphate, diphosphate, triphosphate, a stabilized phosphate prodrug, acyl, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of providing a compound wherein R^2 is H or phosphate; sulfonate ester, benzyl, wherein the phenyl group is optionally substituted with one or more substituents selected from the group consisting of hydroxyl, amino, alkylamino, arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, or phosphonate; a lipid, an amino acid, peptide, or cholesterol; and

R^3 is acyl, alkyl, phosphate, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of being cleaved to the parent compound, or a pharmaceutically acceptable salt thereof, optionally in combination with a pharmaceutically acceptable carrier.

17. The composition of claim 16, wherein the base is a pyrimidine base selected from the group consisting of guanine, adenine, hypoxanthine, 2,6-diaminopurine and 6-chloropurine, or a pharmaceutically acceptable salt thereof.

18. A method for the treatment of hepatitis B infection comprising administering to a patient in need thereof an effective treatment amount of a 2'-fluoro-β-L-nucleoside of the formula:



X= S

wherein

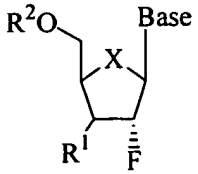
Base is a purine base;

R^1 is OH, H, OR^3, N_3, CN, halogen, CF_3, lower alkyl, amino, loweralkylamino, di(lower)alkylamino;

R^2 is H, monophosphate, diphosphate, triphosphate, a stabilized phosphate prodrug; acyl, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of providing a compound wherein R^2 is H or phosphate; sulfonate ester, benzyl, wherein the phenyl group is optionally substituted with one or more substituents selected from the group consisting of hydroxyl, amino, alkylamino, arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, or phosphonate; a lipid, an amino acid, peptide, or cholesterol; and

R^3 is acyl, alkyl, phosphate, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of being cleaved to the parent compound, or a pharmaceutically acceptable salt thereof, optionally in combination with a pharmaceutically acceptable carrier.

19. A method for the treatment of hepatitis C infection comprising administering to a host in need thereof an effective treatment amount of a 2'-fluoro-(β-L)-nucleoside of the formula:



X = S, CH_2 or O

wherein

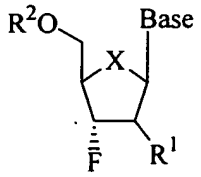
Base is a purine or pyrimidine base;

R^1 is OH, H, OR^3, N_3, CN, halogen, CF_3, lower alkyl, amino, loweralkylamino or di(lower)alkylamino;

R^2 is H, monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug; acyl, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of providing a compound wherein R^2 is H or phosphate; sulfonate ester, benzyl, wherein the phenyl group is optionally substituted with one or more substituents selected from the group consisting of hydroxyl, amino, alkylamino, arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, or phosphonate; a lipid, an amino acid, peptide, or cholesterol; and

R^3 is acyl, alkyl, phosphate, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of being cleaved to the parent compound, or a pharmaceutically acceptable salt thereof, optionally in combination with a pharmaceutically acceptable carrier.

20. A method for the inhibition of HIV comprising administering to a host in need thereof an effective treatment amount of a 2'-fluoro-β-L-nucleoside of the formula:



X = S

wherein

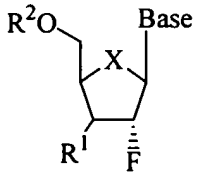
Base is a purine base;

R^1 is OH, H, OR^3, N_3, CN, halogen, CF_3, lower alkyl, amino, loweralkylamino, or di(lower)alkylamino;

R^2 is H, monophosphate, diphosphate, triphosphate, a stabilized phosphate prodrug; acyl, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of providing a compound wherein R^2 is H or phosphate; sulfonate ester, benzyl, wherein the phenyl group is optionally substituted with one or more substituents selected from the group consisting of hydroxyl, amino, alkylamino, arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, or phosphonate; a lipid, an amino acid, peptide, or cholesterol; and

R^3 is acyl, alkyl, phosphate, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of being cleaved to the parent compound, or a pharmaceutically acceptable salt thereof, optionally in combination with a pharmaceutically acceptable carrier.

21. A method for the treatment of abnormal cellular proliferation in humans comprising administering to a host in need thereof an effective treatment amount of a 2'-fluoro-nucleoside of the formula:



X = S or CH_2

wherein

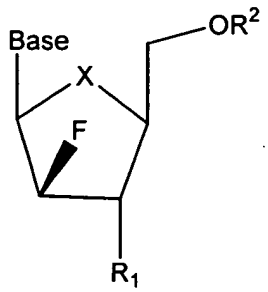
Base is a purine or pyrimidine base;

R^1 is OH, H, OR^3, N_3, CN, halogen, CF_3, lower alkyl, amino, loweralkylamino, or di(lower)alkylamino;

R^2 is H, monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug, acyl, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of providing a compound wherein R^2 is H or phosphate; sulfonate ester, benzyl, wherein the phenyl group is optionally substituted with one or more substituents selected from the group consisting of hydroxyl, amino, alkylamino, arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, or phosphonate; a lipid, an amino acid, peptide, or cholesterol; and

R^3 is acyl, alkyl, phosphate, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of being cleaved to the parent compound, or a pharmaceutically acceptable salt thereof, optionally in combination with a pharmaceutically acceptable carrier.

22. A 2'-fluoro-β-L-nucleoside of the formula:



X=S

wherein

Base is a purine base;

R^1 is H, OR^3, N_3, CN, halogen, CF_3, lower alkyl, amino, loweralkylamino, di(lower)alkylamino;

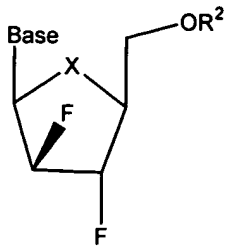
R^2 is H, monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug, acyl, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of providing a compound wherein R^2 is H or phosphate; sulfonate ester, benzyl, wherein the phenyl group is optionally substituted with one or more substituents selected from the group consisting of hydroxyl, amino, alkylamino, arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, or phosphonate; a lipid, an amino acid, peptide, or cholesterol; and

R^3 is acyl, alkyl, phosphate, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of being cleaved to the parent compound, or a pharmaceutically acceptable salt thereof, optionally in combination with a pharmaceutically acceptable carrier.

23. The compound of claim 22, wherein the base is a purine base, R^2 is H, monophosphate, diphosphate, triphosphate or acyl, or a pharmaceutically acceptable salt thereof.

24. The compound of claim 23, wherein the purine base is selected from the group consisting of guanine, adenine, hypoxanthine, 2,6-diaminopurine and 6-chloropurine, or a pharmaceutically acceptable salt thereof.

25. A pharmaceutical composition comprising an effective treatment amount of a 2'-fluoro-β-L-nucleoside of the formula:



X=S

wherein

Base is a purine base;

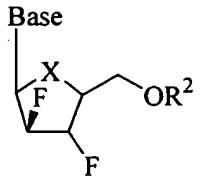
R^1 is H, OR^3, N_3, CN, halogen, CF_3, lower alkyl, amino, loweralkylamino, di(lower)alkylamino;

R^2 is H, monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug, acyl, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of providing a compound wherein R^2 is H or phosphate; sulfonate ester, benzyl, wherein the phenyl group is optionally substituted with one or more substituents selected from the group consisting of hydroxyl, amino, alkylamino, arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, or phosphonate; a lipid, an amino acid, peptide, or cholesterol; and

R^3 is acyl, alkyl, phosphate, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of being cleaved to the parent compound, or a pharmaceutically acceptable salt thereof, in combination with a pharmaceutically acceptable carrier.

26. The composition of claim 25, wherein the base is a purine base selected from the group consisting of guanine, adenine, hypoxanthine, 2,6-diaminopurine and 6-chloropurine, or a pharmaceutically acceptable salt thereof.

27. A method for the treatment of hepatitis B infection comprising administering to a host in need thereof an effective treatment amount of a 2'-β-fluoro-β-L-nucleoside of the formula:



X=S

wherein

Base is a purine base;

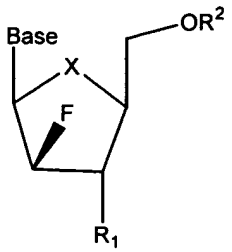
R^1 is OH, H, OR^3, N_3, CN, halogen, CF_3, lower alkyl, amino, loweralkylamino, or di(lower)alkylamino;

R^2 is H, monophosphate, diphosphate, triphosphate, a stabilized phosphate prodrug, acyl, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of providing a compound wherein R^2 is H or phosphate; sulfonate ester, benzyl, wherein the phenyl group is optionally substituted with one or more substituents selected from the group consisting of hydroxyl, amino, alkylamino, arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, or phosphonate; a lipid, an amino acid, peptide, or cholesterol; and

R^3 is acyl, alkyl, phosphate, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of being cleaved to the parent compound, or a

pharmaceutically acceptable salt thereof, optionally in combination with a pharmaceutically acceptable carrier.

28. A method for the treatment of hepatitis C infection comprising administering to a patient in need thereof an effective treatment amount of a 2-fluoro-β-L-nucleoside of the formula:



X=S or CH_2

wherein

Base is a purine or pyrimidine base;

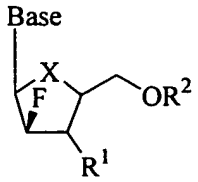
R^1 is OH, H, OR^3, N_3, CN, halogen, CF_3, lower alkyl, amino, loweralkylamino, di(lower)alkylamino;

R^2 is H, monophosphate, diphosphate, triphosphate, a stabilized phosphate prodrug, acyl, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of providing a compound wherein R^2 is H or phosphate; sulfonate ester, benzyl, wherein the phenyl group is optionally substituted with one or more substituents selected from the group consisting of hydroxyl, amino, alkylamino, arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, or phosphonate; a lipid, an amino acid, peptide, or cholesterol; and

R^3 is acyl, alkyl, phosphate, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of being cleaved to the parent compound, or a

pharmaceutically acceptable salt thereof, optionally in combination with a pharmaceutically acceptable carrier.

29. A method for the inhibition of HIV comprising administering to a host in need thereof an effective treatment amount of a 2'-fluoro-β-L-nucleoside of the formula:



X=S or CH_2

wherein

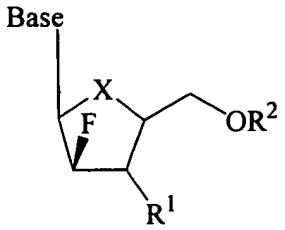
Base is a purine base;

R^1 is OH, H, OR^3, N_3, CN, halogen, CF_3, lower alkyl, amino, loweralkylamino, or di(lower)alkylamino;

R^2 is H, monophosphate, diphosphate, triphosphate, a stabilized phosphate prodrug, acyl, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of providing a compound wherein R^2 is H or phosphate; sulfonate ester, benzyl, wherein the phenyl group is optionally substituted with one or more substituents selected from the group consisting of hydroxyl, amino, alkylamino, arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, or phosphonate; a lipid, an amino acid, peptide, or cholesterol; and

R^3 is acyl, alkyl, phosphate, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of being cleaved to the parent compound, or a pharmaceutically acceptable salt thereof, optionally in combination with a pharmaceutically acceptable carrier.

30. A method for the treatment of abnormal cellular proliferation in humans comprising administering to a host in need thereof an effective treatment amount of a 2'-fluoro-β-L-nucleoside of the formula:



$X = S$ or CH_2

wherein

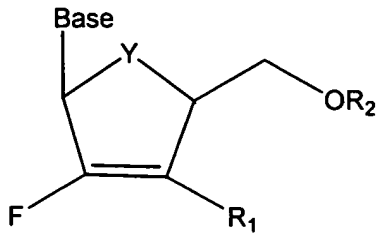
Base is a purine or pyrimidine base;

R^1 is H, OR^3, N_3, CN, halogen, CF_3, lower alkyl, amino, loweralkylamino, or di(lower)alkylamino;

R^2 is H, monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug, acyl, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of providing a compound wherein R^2 is H or phosphate; sulfonate ester, benzyl, wherein the phenyl group is optionally substituted with one or more substituents selected from the group consisting of hydroxyl, amino, alkylamino, arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, or phosphonate; a lipid, an amino acid, peptide, or cholesterol; and

R^3 is acyl, alkyl, phosphate, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of being cleaved to the parent compound, or a pharmaceutically acceptable salt thereof, optionally in combination with a pharmaceutically acceptable carrier.

31. A 2'-fluoro-β-L-nucleoside of the formula:



Y=O

wherein

Base is a purine base;

R^1 is OR^3, N_3, CN, CF_3, lower alkyl, amino, loweralkylamino, or di(lower)alkylamino;

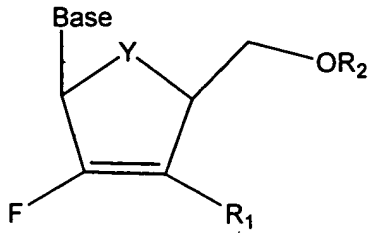
R^2 is H, monophosphate, diphosphate, triphosphate, a stabilized phosphate prodrug or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of providing a compound wherein R^2 is H or phosphate; sulfonate ester, benzyl, wherein the phenyl group is optionally substituted with one or more substituents selected from the group consisting of hydroxyl, amino, alkylamino, arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, or phosphonate; a lipid, an amino acid, peptide, or cholesterol; and

R^3 is acyl, alkyl, phosphate, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of being cleaved to the parent compound, or a pharmaceutically acceptable salt thereof.

32. The 2'-fluoronucleoside of claim 31, wherein the base is a purine base, R^2 is hydrogen, monophosphate, diphosphate, triphosphate or acyl, or a pharmaceutically acceptable salt thereof.

33. The 2'-fluoronucleoside of claim 31, wherein the purine base is selected from the group consisting of guanine, adenine, hypoxanthine, 2,6-diaminopurine and 6-chloropurine, or a pharmaceutically acceptable salt thereof.

34. A pharmaceutical composition comprising an effective treatment amount of a 2'-fluoro-β-L-nucleoside of the formula:



Y=O

wherein

Base is a purine base;

R^1 is OR^3, N_3, CN, CF_3, lower alkyl, amino, loweralkylamino, or di(lower)alkylamino;

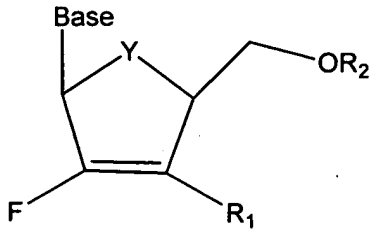
R^2 is H, monophosphate, diphosphate, triphosphate, a stabilized phosphate prodrug, acyl, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of providing a compound wherein R^2 is H or phosphate; sulfonate ester, benzyl, wherein the phenyl group is optionally substituted with one or more substituents selected from the group consisting of hydroxyl, amino, alkylamino, arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, or phosphonate, a lipid, an amino acid, peptide, or cholesterol; and

R^3 is acyl, alkyl, phosphate, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of being cleaved to the parent compound, or a

pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable carrier.

35. The composition of claim 34, wherein the purine base is selected from the group consisting of guanine, adenine, hypoxanthine, 2,6-diaminopurine and 6-chloropurine, or a pharmaceutically acceptable salt thereof.

36. A method for the treatment of hepatitis B infection comprising administering to a patient in need thereof an effective treatment amount of a 2'-fluoro-(β-D or β-L)-nucleoside of the formula:



Y=O

wherein

Base is a purine base;

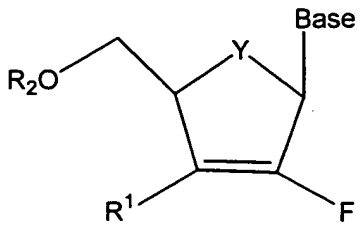
R^1 is OR^3, N_3, CN, CF_3, lower alkyl, amino, loweralkylamino, or di(lower)alkylamino;

R^2 is H, monophosphate, diphosphate, triphosphate, a stabilized phosphate prodrug, acyl, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of providing a compound wherein R^2 is H or phosphate; sulfonate ester, benzyl, wherein the phenyl group is optionally substituted with one or more substituents selected from the group consisting of hydroxyl, amino, alkylamino,

arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, or phosphonate; a lipid, an amino acid, peptide, or cholesterol; and

R^3 is acyl, alkyl, phosphate, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of being cleaved to the parent compound, or a pharmaceutically acceptable salt thereof.

37. A method for the treatment of hepatitis C infection comprising administering to a patient in need thereof an effective treatment amount of a 2'-fluoro-nucleoside of the formula:



Y=O

wherein

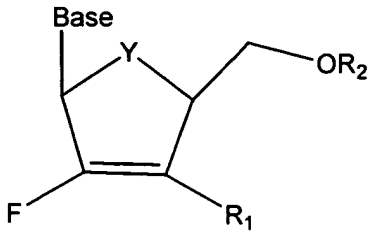
Base is a purine or pyrimidine base;

R^1 is OH, OR^3, N_3, CN, CF_3, lower alkyl, amino, loweralkylamino, or di(lower)alkylamino, and base refers to a purine or pyrimidine base;

R^2 is H, monophosphate, diphosphate, triphosphate, a stabilized phosphate prodrug, acyl, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of providing a compound wherein R^2 is H or phosphate; sulfonate ester, benzyl, wherein the phenyl group is optionally substituted with one or more substituents selected from the group consisting of hydroxyl, amino, alkylamino, arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, or phosphonate; a lipid, an amino acid, peptide, or cholesterol; and

R^3 is acyl, alkyl, phosphate, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of being cleaved to the parent compound, or a pharmaceutically acceptable salt thereof.

38. A method for inhibiting the replication of HIV comprising administering to a patient in need thereof an effective treatment amount of a 2'-fluoro-β-L-nucleoside of the formula:



Y=O

wherein

Base is a purine base;

R^1 is OR^3, N_3, CN, CF_3, lower alkyl, amino, loweralkylamino, or di(lower)alkylamino;

R^2 is H, monophosphate, diphosphate, triphosphate, a stabilized phosphate prodrug, acyl, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of providing a compound wherein R^2 is H or phosphate; sulfonate ester, benzyl, wherein the phenyl group is optionally substituted with one or more substituents selected from the group consisting of hydroxyl, amino, alkylamino, arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, or phosphonate; a lipid, an amino acid, peptide, or cholesterol; and

R^3 is acyl, alkyl, phosphate, or other pharmaceutically acceptable leaving group which when administered *in vivo*, is capable of being cleaved to the parent compound, or a pharmaceutically acceptable salt thereof.

39. The 2'-fluoro-β-D or β-L-nucleoside of claim 25, wherein R^1 and R^2 are hydrogen.

40. The pharmaceutical composition of claim 16, wherein R^1 and R^2 of the 2'-fluoro-β-L-nucleoside are hydrogen.

41. The method of claim 18, wherein R^1 and R^2 of the 2'-fluoro-β-L-nucleoside are hydrogen.

42. The method of claim 20, wherein R^1 and R^2 of the 2'-fluoro-β-L-nucleoside are hydrogen.

43. The method of claim 21, wherein X of the 2'-fluoro-nucleoside is S.

44. The 2'-fluoro-β-L-nucleoside of claim 22, wherein R^1 and R^2 are hydrogen.

45. The pharmaceutical composition of claim 25, wherein R^1 and R^2 of the 2'-fluoro-β-L-nucleoside are hydrogen.

46. The method of claim 27, wherein R^1 and R^2 of the 2'-fluoro-β-L-arabinonucleoside are hydrogen.

47. The method of claim 29, wherein R^1 and R^2 of the 2'-fluoro-β-L-arabinonucleoside are hydrogen.

48. The method of claim 30, wherein X of the 2'-fluoro-β-L-arabinonucleoside is CH_2.

49. The 2'-fluoro-β-D or β-L-nucleoside of claim 13, wherein R^1 is OH or OR^3.

50. The pharmaceutical composition of claim 16, wherein $R^1$of the 2'-fluoro-β-L-nucleoside is OH or OR^3.

51. The method of claim 18, wherein R^1 of the 2'-fluoro-β-L-nucleoside is OH or OR^3.

52. The method of claim 20, wherein R^1 of the 2'-fluoro-β-L-nucleoside is OH or OR^3.

53. The 2'-fluoro-β-L-nucleoside of claim 22, wherein R^1 is OH or OR^3.

54. The pharmaceutical composition of claim 25, wherein R^1 of the 2'-fluoro-β-L-nucleoside is OH or OR^3.

55. The method of claim 27, wherein R^1 of the 2'-fluoro-β-L-arabinonucleoside is OH or OR^3.

56. The method of claim 27, wherein R^1 of the 2'-fluoro-β-L-arabinonucleoside is OH or OR^3.